



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

September 7, 2012

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

Raymond Flores
FROM: Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)

TO: Brenda Cook, Superfund Project Manager (6SF-TR)
Gary Moore, On-Scene Coordinator (6SF-PR)

Site: DELTA SHIPYARD

Case#: 42764

SDG#: MF6AA0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.



9522653

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: September 7, 2012

TO: Marvely Humphrey, ESAT PO, Region 6 EPA

FROM: Linda Hoffman, Data Reviewer, ESAT

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT *DGJ*

SUBJECT: CLP Data Review

Contract No.: EP-W-06-030
TO No.: 030
Task/Sub-Task: 2-12
ESAT Doc. No.: B030-212-0084
TDF No.: 6-12-492B
ESAT File No.: I-0573

Attached is the data review summary for Case # 42764

SDG # MF6AA0

Site Delta Shipyard

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified for technical problems. The significant problems are addressed below.

- A. Laboratory blank readings caused the qualification of four beryllium results.
- B. The antimony matrix spike recovery was below the QC limit.
- C. The lead serial dilution difference exceeded the expanded QC limit for soils.

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REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099**

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	42764	SITE	Delta Shipyard
LABORATORY	CHEM	NO. OF SAMPLES	20
CONTRACT#	EP-W-09-038	MATRIX	1 Water/19 Soil
SDG#	MF6AA0	REVIEWER (IF NOT ESB)	ESAT
SOW#	ISM01.3	REVIEWER'S NAME	Linda Hoffman
SF#	303DD2GC	COMPLETION DATE	September 7, 2012

SAMPLE NO.	MF6AA0	MF6AA4	MF6AA8	MF6AB2	MF6AB7
	MF6AA1	MF6AA5	MF6AA9	MF6AB3	MF6AB8
	MF6AA2	MF6AA6	MF6AB0	MF6AB4	MF6AB9
	MF6AA3	MF6AA7	MF6AB1	MF6AB5	MF6AC1

DATA ASSESSMENT SUMMARY

	ICP	HG
1. HOLDING TIMES	O	O
2. CALIBRATIONS	O	O
3. BLANKS	M	O
4. MATRIX SPIKES	M	O
5. DUPLICATE ANALYSIS	O	O
6. ICP QC	M	
7. LCS	O	
8. SAMPLE VERIFICATION	O	O
9. OTHER QC	N/A	N/A
10. OVERALL ASSESSMENT	M	O

O = Data had no problems.

M = Data qualified due to major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN: Laboratory blank readings caused the qualification of four beryllium results. The antimony matrix spike recovery was below the QC limit. The lead and zinc serial dilution differences exceeded the expanded QC limit for soils.

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 42764 SDG MF6AA0 SITE Delta Shipyard LAB CHEM

COMMENTS: This SDG consisted of 1 water and 19 soil samples for total metals (by ICP-AES) and mercury analyses following CLP SOW ISM01.3. The sampler designated soil sample MF6AA4 and water sample MF6AB5 for laboratory QC analyses although the water sample was a rinsate. The laboratory was instructed by the Region not to perform QC analyses on the water sample.

The SOW requires that the soil sample results be adjusted for moisture content and dilution, which raised the adjusted QLs above the CRQLs specified in the SOW. The adjusted CRQLs were reported by the laboratory and are referred to as SQLs in this report.

Standard review was performed for this data package as requested by the TDF. The analytes of concern with the CRQLs, which are in parentheses, as the desired detection limits were arsenic (1 mg/kg) and barium (20 mg/kg). All soil samples contained both analytes of concern at concentrations over the desired detection limits. The laboratory diluted (up to 10X) and reanalyzed all soil samples except samples MF6AA4, MF6AA7, MF6AA9, and MF6AC1 because of high concentrations of barium, iron, manganese, and/or zinc.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

- Because of laboratory blank readings, the reviewer qualified the beryllium results >SQLs for the following samples as estimated and biased high: MF6AB0, MF6AB2, MF6AB3, and MF6AB4.
- Because of laboratory blank readings, the beryllium result <SQL for sample MF6AB1 and the aluminum and copper results <CRQLs for sample MF6AB5 should be considered undetected and were flagged "U" at the SQL/CRQLs on the DST.
- The reviewer qualified the antimony soil sample results as estimated and biased low because the antimony pre-digestion matrix spike recovery was below the 75% QC limit and the post-digestion matrix spike analysis indicated a low bias effect.
- The reviewer qualified the lead and zinc soil sample results as estimated because the serial dilution differences for these analytes exceeded the expanded QC limit for soils.

OVERALL ASSESSMENT: Some results were qualified for all soil samples because of problems with laboratory blank readings, a matrix spike recovery, and/or serial dilution differences. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

**INORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 42764 SDG MF6AA0 SITE Delta Shipyard LAB CHEM

The laboratory was contacted for some CSF and reporting issues (see Resubmission Request). The laboratory response will not affect the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE: Case Number
SDG: SDG Number
EPASAMP: EPA Sample Number
LABID: Laboratory File/Sample ID
MATRIX: Sample Matrix
QCCOD: Sample QC Code
SMPQUAL: Sample Qualifier
ANDATE: Sample Analysis Date
ANTIME: Sample Analysis Time
CASNUM: Compound CAS Number
ANALYTE: Compound Name
CONC: Compound Concentration
VALDQAL: Region 6 Inorganic Data Validation Qualifier (see
Inorganic Data Qualifier Definitions on the next page)
UNITS: Concentration Units
ADJCRQL: Adjusted Contract Required Quantitation Limit Value
SMPDATE: Sampling Date
PRPDATE: Sample Preparation Date
LRDATE: Laboratory Receipt Date
LEVEL: Sample Level
PERSOLD: Sample Percent Solids
SMPWTVL: Sample Weight (Soil Samples)/Initial Sample Volume (Water
Samples)
FINLVOL: Final Sample Volume
METHOD: Method of Analysis
STATLOC: Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

INORGANIC DATA QUALIFIER DEFINITIONS

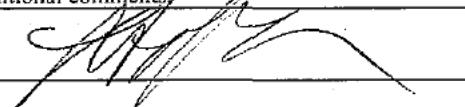
The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- L** Reported concentration is between the MDL and the CRQL.
- J** Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R** Result is unusable.
- F** A possibility of a false negative exists.
- UC** Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- +** High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W** The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No.	42764	SDG No.	MF6AA0	SDG Nos. To Follow	Mod. Ref. No.	Date Rec	08/30/12
EPA Lab ID:	CHEM		ORIGINALS		YES	NO	N/A
Lab location:	Mountainside, NJ		CUSTODY SEALS				
Region:	6	Audit No.:	42764/MF6AA0		1. Present on package?	X	
Resubmitted CSF?	Yes	No	X	2. Intact upon receipt?	X		
Box No(s):	1		FORM DC-2				
COMMENTS:				3. Numbering scheme accurate?	X		
				4. Are enclosed documents listed?	X		
				5. Are listed documents enclosed?	X		
				FORM DC-1			
				6. Present?	X		
				7. Complete?		X	
				8. Accurate?	X		
The laboratory was contacted for both of these issues.				TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)			
				9. Signed?	X		
				10. Dated?	X		
				AIRBILLS/AIRBILL STICKER			
				11. Present?		X	
				12. Signed?	X		
				13. Dated?	X		
				SAMPLE TAGS			
				14. Does DC-1 list tags as being included?	X		
				15. Present?	X		
				OTHER DOCUMENTS			
				16. Complete?	X		
				17. Legible?	X		
				18. Original?		X	
				18a. If "NO", does the copy indicate where original documents are located?	X		
Over for additional comments:							

Audited



Linda Hoffman/ESAT Data Reviewer

Date 09/04/12

Audited

Date _____

Signature

Printed Name/Title

DC-2

In Reference To Case No(s):
42764 SDG: MF6AA0 (I-0573)

**Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM**

Resubmission Request

Laboratory Name:	CHEM
Lab Contact:	Divya Mehta
Region:	6
Regional Contact:	Raymond Flores - EPA
ESAT Reviewer:	Linda Hoffman - ESAT

In reference to data for the following fractions:

CSF Deliverables ICP-AES

Summary of Questions/Issues:

CSF Deliverables

1. Airbill #798710577117 was not submitted. Please submit a copy of this document paginated as 2348A, indicating the location of the original document. Please also revise Item 31 on Form DC-2-2 accordingly.
2. The airbill number associated with the samples listed on the COC Record on page 10 was not recorded on the Form DC-1 on page 6. Please resubmit page 6 with the airbill #798704718200 recorded.

ICP-AES

On Forms 1 and 6, the beryllium and cobalt results were "*" flagged. However, on Form 6, the differences between the sample and duplicate results were not greater than the control limits. Please correct and resubmit Forms 1 and 6.

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.3, p. B-8, sec. 2.2.1). Custody seals are required only for regular mail shipments.

Please respond to the above item **within 6 business days (ISM01.3, p. B-8, sec. 2.2)** by e-mail to Flores.Raymond@epa.gov. If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP Inorganics COC (REGION COPY)

DateShipped: 8/7/2012

CarrierName: FedEx

AirbillNo: 798704717556

CHAIN OF CUSTODY RECORD

Delta_Shipyard/LA

Case #: 42764

Cooler #: 1

No: 6-080612-155959-0003

Lab: ChemTech Consulting Group

Lab Contact: Snehal Mehta

Lab Phone: 908-789-8900

Sample(s) to be used for Lab QC: MF6AA4

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TM + Hg=Total Metals + Hg

USEPA CLP Inorganics COC (REGION COPY)

DateShipped: 8/7/2012

CarrierName: FedEx

Airbill No: 798704718200

CHAIN OF CUSTODY RECORD

Delta Shipyards/LA

Case #: 42764

Cooler #: 2

No: 6-080612-165138-0004

Lab: ChemTech Consulting Group

Lab Contact: Snehal Mehta

Lab Phone: 908-789-8900

Special Instructions: Field QC: MF6AB5	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
Analysis Key: TM + Hg=Total Metals + Hg	

USEPA CLP Inorganics COC (REGION COPY)

DateShipped: 8/7/2012

CarrierName: FedEx

AirbillNo: 793875486827

CHAIN OF CUSTODY RECORD

Delta_Shipyard/LA

Case #: 42764

Cooler #: 3

No: 6-080712-121207-0014

Lab: ChemTech Consulting Group

Lab Contact: Snehal Mehta

Lab Phone: 908-789-8900

Sample(s) to be used for Lab QC: MF6ACD

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TM + Hg = Total Metals + Hg